

Applicants: YONA, Zvi et al.
Serial No.: 09/818,575

Attorney Docket No.: P-3068-US

Kingslake. In Appendix A, polarization by double refraction is described, for example by use of a Rochon or Wollaston prism.

Appellants further submit that other suitable devices are known in the art for such purposes and are commercially available. For example, Appellants have attached to a previous response to Office Action (filed August 16, 2004), and further enclose herein as Appendix B, pages 234-235 of a 1998-99 catalog for laser and photonics applications from Coherent, which offers for sale polarizing beamsplitting cubes and prisms. As explained therein, the effect of such devices is to receive an incoming beam and divide it into its component polarized components. Any of these devices is able to take a beam of a first polarization and direct it in a first direction and direct a second beam of a second polarization in a second direction.

Appellants point out that in the Final Office Action (bottom of page 3, top of page 4), apparently the Examiner admits that the "wedge with two polarization-dependent reflective planes", as disclosed in the specification, indeed enable the apparatus.

Third, the Examiner contended that the "wedge with two polarization-dependent reflective planes", which is disclosed in the specification, is essential structure for making the apparatus operable, but is not explicitly recited in the rejected claims.

With this third ground for rejection, too, Appellants respectfully disagree.

The "wedge with two polarization-dependent reflective planes", which is disclosed in the specification, indeed enables the apparatus; however, the wedge is only an exemplary implementation of many structures and devices known in the art to both reflect and redirect light. Such structures and devices are known in the art, as reflected, for example, in Appendix A and Appendix B. Therefore, Appellants respectfully submit that the "wedge with two polarization-dependent

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reflective planes", while enabling the apparatus, is not an essential structure of the claimed invention and need not be recited in the rejected claims.

Fourth, with regard to claims 34 and 36, the Examiner inquired how an image source can be capable of generating spatially complementary images of different wavelengths or of different polarizations. The Examiner contended that multiple different image generators are required for generating different images of different wavelengths or of different polarizations.

Appellants respectfully disagree. Appellants point to page 7 of the specification, which discloses that in one embodiment of the invention, the image source may be "one common display (such as with a LCD display). The image source may be any type of display technology using P&S polarizers or LCD technology (such as from: Sony, Sharp, Kopin, MicroDisplay and others). . ."

It is well known in the art that a Liquid Crystal Display (LCD) polarizes an incoming light beam by 90 degrees. Accordingly, allowing a polarized image to pass the LCD without electro-optic modulation would produce an image having a first polarization. Alternatively, taking the polarized image and electro-optically modulating it would produce an image having a second polarization orthogonal to the first.

Fifth, with respect to the Examiner's inquiry regarding producing images having different wavelengths, it is also known in the art that an LCD can produce multiple colors, e.g., as displayed on laptop computers having a color LCD screen. Accordingly, in one embodiment of the invention, by using the same LCD image source to produce different colored images in time sequence, different wavelength images may be formed.

Sixth, the Examiner further inquired how the wavelength sensitive redirecting unit can be capable of directing first and second complementary images to different spatial locations according to wavelength, and required

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clarifications. The Examiner contended that a wavelength sensitive device cannot redirect the image light to different directions or locations.

Appellants respectfully submit that it is well known in the art that wavelength sensitive units are capable of redirecting first and second complementary images to different spatial locations according to wavelength. For example, a prism does precisely this – direct beams of light having different wavelengths to different spatial locations. Hence, when white light enters a prism, the component colors (wavelengths) emerge at different angles to different spatial locations.

In view of the above, Appellants respectfully submit that claims 1-7, 9-16 and 18-38 comply with the enablement requirement under 35 USC §112, First Paragraph.

2. Claims 1-7, 9-16, 18-23, 35 and 37 are patentable under 35 USC §103(a) over Preston

In the Office Action, the Examiner rejected claims 1-7, 9-16, 18-23, 35 and 37 under 35 U.S.C. § 103(a) as being unpatentable over Preston.

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